

# TAMRON®

NEW

## SP AF28-75mm F/2.8

**XR Di** LD ASPHERICAL (IF) MACRO

For Canon AF, Minolta AF-D, Nikon AF-D, and Pentax AF Cameras.



*The Most Compact and Lightest\*  
in the History of Fast Zoom Lenses*

**Di** Digitally  
Integrated  
Design

SUPER  
PERFORMANCE **SP**

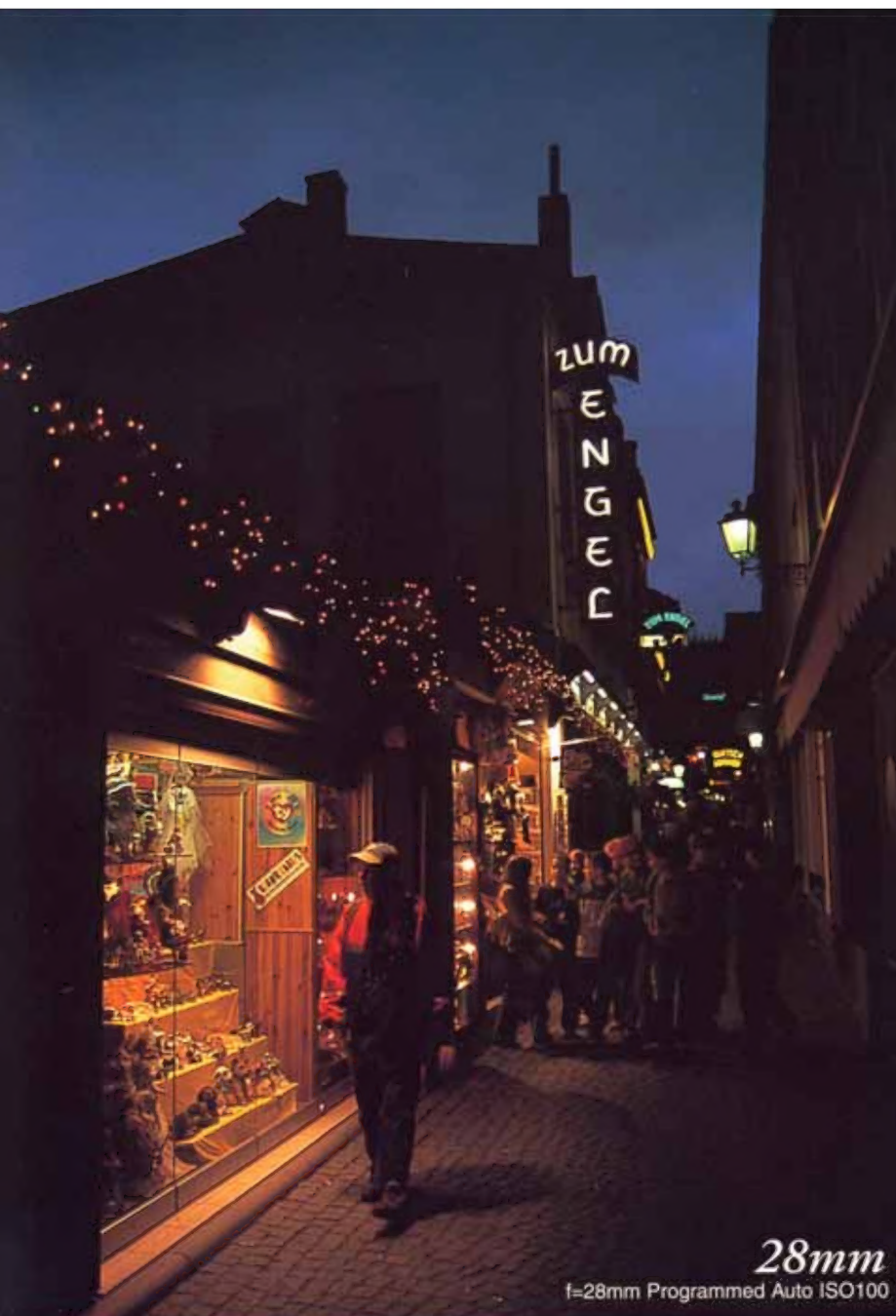
<http://www.tamron.com/>

\*This image is for Canon AF camera

\*As of March 2003. Based upon Tamron research of lenses in the same class.

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**28mm**  
f=28mm Programmed Auto ISO100



**75mm** f=75mm Programmed Auto ISO100

### Close Up

*Offers the closest focusing distance of all zoom lenses in the same class.*

*Minimum Object Distance: 33cm (13")*

*Maximum Magnification Ratio: 1:3.9*

f=75mm Programmed Auto ISO100  
MOD 33cm (13") <Max. Mag. Ratio 1:3.9>



*A Fast Zoom Lens  
Now Providing  
Excellent Portability*

**SP AF28-75mm F/2.8**  
**XR Di** LD ASPHERICAL (IF) MACRO  
For Canon AF, Minolta AF-D, Nikon AF-D, and Pentax AF Cameras.



**F/2.8**

Maximum Aperture  
throughout the Entire Zoom Range

**XR**

The Most Lightweight and Compact\* Fast Zoom  
Lens Ever Thanks to Tamron's XR Technology

**Di**

New Standard for Digital Cameras

\*As of March 2003. Based upon Tamron research of  
lenses in the same class.



# The Allure of A Fast Aperture Lens

One of the most appealing features of a lens is its "speed".

The so-called "fast" lens (e.g., F/2.8) allows approximately twice the amount of light into the lens compared to a lens with an ordinary maximum aperture (e.g., F/4).

Therefore, a fast lens offers such picture-taking advantages as:

## (1) Use of higher shutter speeds

→ Sharp images without camera shake

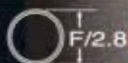
## (2) A beautifully blurred effect

→ Out-of-focus foreground and background that highlights the main subject

## (3) Better image capturing performance

\*Generally speaking, the characteristic of a lens is such that image quality is improved as its diaphragm is stopped down to a certain value: approx. F/11.

Fast lens



stopping down  
by 3 stops



Ordinary lens



stopping down  
by 2 stops



75mm

f=75mm

Open aperture

Auto ISO 400



# All of Tamron's Zoom Lens Technology Comes Together

SP AF28-75mm F/2.8 **XR** **Di** LD ASPHERICAL (IF) MACRO

**F/2.8**

**XR**

**Di**

## A Real Fast Zoom Lens!

**F/2.8 Constant Maximum Open Aperture throughout the Zoom Range, Yet Compact**

The relative aperture (i.e., aperture of a lens) is the focal length divided by the clear aperture (the actual size of the effective diameter, where light actually passes through)\*1. Therefore, it is comparatively easy in terms of size, to make an aperture fast at the wideangle end of a zoom, whereas it is rather difficult to achieve the same aperture at the telephoto end. And to make an aperture at the tele-end as fast as that of its wide-end, a lens tends to become quite bulky.

$$F \text{ (Relative Aperture)} = \frac{f \text{ (focal length)}}{\text{Clear aperture of the lens}}$$

\*1 When a focal length is long, yet the same relative aperture of a shorter lens is desired, the clear aperture of the lens must be larger.

Now, Tamron brings you this ultra-compact zoom lens that does not change its maximum aperture throughout the range, even at telephoto! This allows use of the same high shutter speed even when the lens is zoomed to prevent camera shake and freeze motion. Plus, the beautifully blurred background effects that are desired from telephoto lenses can be attained\*2. We believe a lens that features F/2.8 maximum open aperture throughout the entire zoom range, even at its telephoto end is worthy of "a real fast zoom lens" designation. The technology that enables us to realize this compact fast zoom lens is a technology of which Tamron is very proud.

\*2 To prevent camera shake, you should set your shutter speed to the reciprocal of the focal length (e.g., f=28mm requires 1/28 sec, while a fast 1/75 sec is required at f=75mm).

## Special Glass Materials Such As LD, XR, ASL (Aspherical) Are Used in Abundance

Various types of special glass materials are used in order to achieve the amazingly compact design and outstanding specifications not found in conventional lenses and to ensure high image quality:

**LD glass:** Realizes high image quality by minimizing sharpness fall-off due to chromatic aberration inherent in close focusing at the telephoto end in lenses of conventional optical design.

**The difference in chromatic aberration (dispersion characteristics) between normal optical glass and LD glass elements (typical diagram)**



**XR glass:** Glass having a high refractive index - provides remarkable advantages in making the overall length of the optical system shorter thereby making the lens compact.

**ASL (Aspherical) lens element:** Offers advantages in compensating for spherical aberration and distortion for higher image quality as well as in making the lens compact and lightweight by reducing the number of lens elements in the optical system.

## The Most Compact and Lightest in the History of Fast Zoom Lenses

Thanks to the revolutionary downsizing "XR" technology employed by Tamron in the development of high-power zoom lenses such as the 28-200mm and 28-300mm, the dramatic compactness that makes this lens the world's smallest and lightest\* is achieved. So your previous experiences of "...I bought a fast lens, but it is too heavy and bulky to carry around" - need not be repeated. Tamron's new fast standard zoom is a lens recommended to those photographers who have had this experience. Its compactness makes it look and feel like an ordinary standard zoom lens (F/3.5-4.5), yet the versatility that a fast constant maximum aperture offers will definitely reshape your photographic horizons.

\*As of March 2003. Based upon Tamron research of lenses in the same class.



With a short barrel, it is possible to obtain the same visibility (aperture value) as with a long barrel. By using this principle, we were able to shorten the optic system length for a more compact overall lens design while maintaining aperture values.



\*Values given are for the Nikon AF.

## New Standard of Lenses for Digital Cameras

Di ("Digitally Integrated Design") is a designation Tamron puts on lenses featuring optical systems designed to meet the performance characteristics of digital SLR cameras\*1.

\*1 The same high performance is delivered when used with conventional AF cameras using silver halide film.

## MOD 33cm (13") over the Entire Zoom Range

MOD (Minimum Object Distance) of 33cm (13"), the closest focusing distance among lenses in this class, has been realized. A maximum macro magnification ratio of 1:3.9 can be achieved at the 75mm focal length setting.

## Zoom Lock Mechanism and Flower-shaped Hood are Standard

Even minute aspects are carefully considered by the employment of such features as the zoom lock mechanism designed to prevent self-sliding/extension of the lens barrel while carrying the lens/camera around. And the flower-shaped lens hood, designed to effectively cut unnecessary stray light that causes flare and ghosting, is standard.



Zoom Lock Mechanism

Flower-shaped Hood



## SPECIFICATIONS

Model Name:	A09
Focal Length:	28-75mm
Angle of View:	75°-32°
Maximum Aperture:	F/2.8
Optical Construction:	16 elements/14 groups
Diaphragm:	7 blades
Minimum Object Distance:	0.33m (13")
Max. Mag. Ratio:	1:3.9 (at f=75mm, MOD 33cm)
Length:	92mm (3.6")
	at maximum extension: 125mm (4.9")
Diameter:	ø 73mm (2.9")
Filter Size:	ø 67mm
Weight:	510g (18.0 oz.)
Lens Hood:	Flower-shaped hood

\*Values given are for the Nikon AF.

For Canon AF, Minolta AF, Nikon AF-D and Pentax AF Cameras.

**Caution:** Please read the instruction manual carefully before using the lens.

**TAMRON**

Manufacturer of lenses of photographic, industrial, laboratory, video, and scientific applications.

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**ISO 9001 Certified**  
Tamron operates a quality management system that has been certified as conforming to ISO 9001.

**ISO 14001 Certified**  
Tamron operates an environmental management system that has been certified as conforming to ISO 14001.



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